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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/676,035	10/02/2003	Nobuhiro Takano	Q77756	6918

23373 7590 03/04/2004

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EXAMINER

TIBBITS, PIA FLORENCE

ART UNIT	PAPER NUMBER
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2838

DATE MAILED: 03/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/676,035	TAKANO ET AL.	
	Examiner	Art Unit	
	Pia F Tibbits	2838	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --.

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 16 is/are allowed.
- 6) ☒ Claim(s) 8-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 10/153807.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

This Office action is in answer to the continuation filed May 24, 2002, and the preliminary amendment filed October 2, 2003.

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on 10/2/2003 indicates as application number 10/153807 (the parent application), and was previously filed and considered in application 10/153807. Accordingly, the examiner did not consider the information disclosure statement.

Claim Objections

2. Claim 16 is objected to because of the following informalities: "period of time" should be replaced by ---a period of time---. Appropriate correction is required.

Double Patenting

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 8-15 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-7 of U.S. Patent No. 6683439. Although the conflicting claims are not identical, they are not patentably distinct from each other because they describe a DC power source unit used as a power source of an electrically powered tool, the tool having a power switch, the DC power source unit comprising: charging means for charging a battery pack used as an alternative power source of the tool; a power output switch circuit for

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switching between supplying the DC power to the tool and supplying DC power to the battery pack for charging the battery pack; a battery condition detecting means for detecting a condition of the battery pack and outputting a condition signal indicative of the condition of the battery pack; a controller that receives the condition signal from the battery condition detecting means and determines that the battery pack is fully charged when the condition signal has reached a predetermined value, wherein the controller receives the condition signal from the battery condition detecting means and determines that the battery pack is fully charged regardless of whether the charging means is supplied with the DC power; battery temperature detecting means for detecting a temperature of the battery pack, the condition signal output from the battery temperature detecting means being indicative of the temperature of the battery pack; measuring means for measuring a non-use period of time during which time the tool is continuously held in a non-use condition, wherein the controller outputs a charge enabling signal to the power output switch circuit when the non-use period of time exceeds a predetermined period of time to allow the charging means to resume charging the battery pack; a controller that measures a non-use period of time during which time the tool is continuously held in a non-use condition and outputs a charge enabling signal to the power output switch circuit when the non-use period of time exceeds a predetermined period of time to allow the charging means to resume charging the battery pack; and load current detecting means for detecting a load current flowing in the tool, wherein the controller determines that the tool is in the non-use condition when the load current detecting means does not detect the load current.

Allowable Subject Matter

5. Claim 16 is allowed.

With regard to claim 16: none of the references of record prior to applicant's filing date disclose, teach, or suggest, and it would not have been obvious to a person of ordinary skill in the art to provide a method for controlling a DC power source unit used as a power source of an

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electrically powered tool, the tool having a chargeable battery pack used as an alternative power source of the tool and a power switch, the method comprising, *inter alia*, the steps of measuring a period of time during which an on/off switch is continuously held in off state, and supplying a DC voltage from the DC power source to the chargeable battery pack to charge the battery pack, when the measured time period exceeds a predetermined period of time. As noted here, and as described in the specification, the claimed invention allows accurate detection of a fully charged condition of a battery pack powering a tool regardless of whether the charging means is supplied with the DC power.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art cited in PTO-892 and not mentioned above disclose related apparatus: **Sainsbury et al.** [6104162] discloses a multi-power source for power tools, including a multi-functional battery module includes batteries, a battery charger which uses power from the multi-functional power block to recharge the battery, a power distributor, and a power monitor which monitors operation of the tool's motor so that the power distributor can automatically deliver the required voltage and current to the tool's motor from one or a combination of battery power and the multi-functional power block to produce the required operational driving torque. **Siegle et al.** [6005489] discloses an electric power tool that includes a power supply, which is one of a replaceable battery unit, a rechargeable battery unit, and a cable connection for detachably connecting to a mains power supply. A code receiver is provided for receiving a code signal from a code signal-emitting device via a contact free transmission. An electronic controller is arranged to switch the power tool to an operable mode when the power supply is coupled to the power tool and the code signal receiver receives the code signal. **Yoshimizu et al.** [6495932] discloses a DC power source unit includes a main unit that generates DC voltage, and an output cable. The output cable is connected, either integrally or detachably, at one end to the output of the main unit and another end to an adapter plug. The adapter plug is electrically connected to

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an electrically powered tool, such as an electrical drill. In fig.9 the patent discloses that the power supply is interrupted for a predetermined period of time. In this case, the reset switch 19 does not need to be manipulated. After expiration of the predetermined period of time, the accumulated electrical quantity is reduced so that driving of the electrical drill 40 can be resumed.

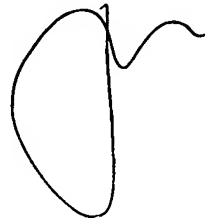
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Pia Tibbits whose telephone number is (571) 272-2086. If unavailable, contact the Supervisory Patent Examiner Mike Sherry whose telephone number is (571) 272-2084.

8. Any inquiry of a general nature or relating to the status of this application should be directed to the Technology Center receptionist whose telephone number is (571) 272-2800.

Papers related to Technology Center 2800 applications only may be submitted to Technology Center 2800 by facsimile transmission. Any transmission not to be considered an official response must be clearly marked "DRAFT". The faxing of such papers must conform to the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The Technology Center Fax Center number is (703) 872-9306.

PFT

March 1, 2004

A handwritten signature, likely of Pia Tibbits, consisting of a large, stylized 'P' followed by a wavy line.